**Task 4(CUCUMBER + SELENIUM + JUNIT)**

* Cucumber and Selenium WebDriver with Java is powerful combination with respect to Web Application automation.
* Allows to write the test cases using language **'Gherkin'**.
* It has three important sections **feature file, step Definition and Runner Class.**
* It is created as a Maven project which runs based on dependencies added in the pom.xml.

**Feature file:**

* Extension: .feature
* Language: Gherkin
* It uses few specific keywords of Gherkin.
* First line of feature file should start with the Feature, followed by Scenario.
* There can be multiple Scenarios in the Feature file.
* Each Scenario can be complete using **Given, When, Then, And, But.**

Capstone.feature

Feature: This test the urbanladder website

Scenario: Test the living section\_1

Given the user opens the browser

When the user navigates to urban ladder

Then search living section\_1

Scenario: Test the living section\_2

Given the user opens the browser2

When the user navigates to urban ladder2

Then selecting product in section\_1

Scenario: Test the living section\_3

Given the user opens the browser3

When the user navigates to urban ladder3

Then selecting product in section3

Scenario: Test the living section\_4

Given the user opens the browser4

When the user navigates to urban ladder4

Then selecting product in section4

**stepDefenition:**

* Contains the actual login implementation for automation.
* Language would be based on the once choose for automation (java, ruby, python and more).

Step Definition:

package StepDefinitions;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.interactions.Actions;

import io.cucumber.java.en.Given;

import io.cucumber.java.en.Then;

import io.cucumber.java.en.When;

public class StepDefinition {

WebDriver driver =null;

@Given("the user opens the browser")

public void the\_user\_opens\_the\_browser\_1() {

System.setProperty("webdriver.chrome.driver","C:\\Users\\user\\Downloads\\chromedriver\_win32 (1)\\chromedriver.exe" );

driver = new ChromeDriver();

driver.manage().window().maximize();

}

@When("the user navigates to urban ladder")

public void the\_user\_navigates\_to\_urban\_ladder1 () {

driver.get("https://www.urbanladder.com/");

}

@Then("search living section\_1")

public void search\_living\_section\_1() throws InterruptedException {

driver.findElement(By.id("search")).getTagName();

driver.manage().window().maximize();

driver.navigate().to("https://www.urbanladder.com/living-room-furniture?src=g\_breadcrumb");

Thread.sleep(6000);

driver.findElement(By.xpath("//\*[@id=\"authentication\_popup\"]/div[1]/div/div[2]/a[1]")).click();

System.out.println("Pop-up Closed");

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id=\"topnav\_wrapper\"]/ul/li[2]/span")).click();

System.out.println("Clicking on living");

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id=\"topnav\_wrapper\"]/ul/li[2]/div/div/ul/li[3]/ul/li[6]/a/span")).click();

Thread.sleep(2000);

System.out.println("Clicking on gaming chairs");

driver.findElement(By.xpath("//\*[@id=\"filters\_availability\_In\_Stock\_Only\"]")).click();

System.out.println("Checkboxing now");

Thread.sleep(2000);

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id=\"filters-form\"]/div[1]/div/div/ul/li/div[1]")).click();

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id=\"price\_limit\_8717-9373\"]")).click();

Thread.sleep(2000);

System.out.println("Clicking radio button");

driver.findElement(By.xpath("//\*[@id=\"filters-form\"]/div[1]/div/div/ul/li/div[2]/div/div/ul/li[1]/div/div[1]/span[2]")).click();

Thread.sleep(2000);

System.out.println("Clearing filter");

driver.findElement(By.xpath("//\*[@id=\"price\_limit\_9374-10029\"]")).click();

Thread.sleep(2000);

System.out.println("Changed the price limit filter");

Actions actions = new Actions(driver);

actions.moveToElement(driver.findElement(By.xpath("//\*[@id=\"content\"]/div[4]/ul/li"))).perform();

System.out.println("Cursor hovered over to price");

Thread.sleep(2000);

System.out.println("Window closed");

driver.close();

}

@Given("the user opens the browser2")

public void opens\_the\_browser\_2() {

System.setProperty("webdriver.chrome.driver","C:\\Users\\user\\Downloads\\chromedriver\_win32 (1)\\chromedriver.exe" );

driver = new ChromeDriver();

driver.manage().window().maximize();

}

@When("the user navigates to urban ladder2")

public void the\_user\_navigates\_to\_urban\_ladder2() {

driver.get("https://www.urbanladder.com/");

}

@Then("selecting product in section\_1")

public void selecting\_product\_in\_section\_1() throws InterruptedException {

driver.findElement(By.id("search")).getTagName();

driver.manage().window().maximize();

System.out.println("selecting the product");

driver.navigate().to("https://www.urbanladder.com/products/gerika-gaming-chair?sku=FVSTCH51OB30320&src=subcat");

Thread.sleep(6000);

driver.findElement(By.xpath("//\*[@id=\"authentication\_popup\"]/div[1]/div/div[2]/a[1]")).click();

System.out.println("Pop-up Closed");

driver.findElement(By.xpath("//\*[@id=\"product-thumbnails\"]/li[3]/a/img")).click();

Thread.sleep(2000);

System.out.println("change the view");

driver.findElement(By.xpath("//\*[@id=\"add-to-cart-button\"]")).click();

Thread.sleep(2000);

System.out.println("add to cart");

driver.findElement(By.xpath("//\*[@id=\"checkout-link\"]")).click();

Thread.sleep(2000);

System.out.println("checkout");

driver.findElement(By.id("order\_email")).sendKeys("abc@gmail.com");

driver.findElement(By.id("order\_ship\_address\_attributes\_zipcode")).sendKeys("683580");

driver.findElement(By.id("order\_ship\_address\_attributes\_address1")).sendKeys("abcdefg");

driver.findElement(By.id("order\_ship\_address\_attributes\_firstname")).sendKeys("xxxxxx");

driver.findElement(By.id("order\_ship\_address\_attributes\_lastname")).sendKeys("yyyyyy");

driver.findElement(By.id("order\_ship\_address\_attributes\_phone")).sendKeys("xxxxxx");

driver.findElement(By.id("gstin")).sendKeys("gst123");

driver.findElement(By.id("address-form-submit")).click();

Thread.sleep(2000);

System.out.println("filling up the details");

System.out.println("Window closed");

driver.close();

}

@Given("the user opens the browser3")

public void opens\_the\_browse3() {

System.setProperty("webdriver.chrome.driver","C:\\Users\\user\\Downloads\\chromedriver\_win32 (1)\\chromedriver.exe" );

driver = new ChromeDriver();

driver.manage().window().maximize();

}

@When("the user navigates to urban ladder3")

public void navigates\_to\_urban\_ladder3() {

driver.get("https://www.urbanladder.com/");

}

@Then("selecting product in section3")

public void selecting\_product\_in\_section\_3() throws InterruptedException {

driver.findElement(By.id("search")).getTagName();

driver.manage().window().maximize();

System.out.println("selecting the product3");

driver.navigate().to("https://www.urbanladder.com/products/altura-coffee-table-with-nested-stools?sku=FNTBCF12TT10053&src=room");

Thread.sleep(6000);

driver.findElement(By.xpath("//\*[@id=\"authentication\_popup\"]/div[1]/div/div[2]/a[1]")).click();

System.out.println("Pop-up Closed");

driver.findElement(By.xpath("//\*[@id=\"product-thumbnails\"]/li[5]/a/img")).click();

Thread.sleep(2000);

System.out.println("change the view");

driver.findElement(By.xpath("//\*[@id=\"add-to-cart-button\"]")).click();

Thread.sleep(2000);

System.out.println("add to cart");

driver.findElement(By.xpath("//\*[@id=\"checkout-link\"]")).click();

Thread.sleep(2000);

System.out.println("checkout");

driver.findElement(By.id("order\_email")).sendKeys("abc@gmail.com");

driver.findElement(By.id("order\_ship\_address\_attributes\_zipcode")).sendKeys("683580");

driver.findElement(By.id("order\_ship\_address\_attributes\_address1")).sendKeys("abcdefg");

driver.findElement(By.id("order\_ship\_address\_attributes\_firstname")).sendKeys("xxxxxx");

driver.findElement(By.id("order\_ship\_address\_attributes\_lastname")).sendKeys("yyyyyy");

driver.findElement(By.id("order\_ship\_address\_attributes\_phone")).sendKeys("xxxxxx");

driver.findElement(By.id("gstin")).sendKeys("gst123");

driver.findElement(By.id("address-form-submit")).click();

System.out.println("Window closed");

driver.close();

}

@Given("the user opens the browser4")

public void opens\_the\_browse4() {

System.setProperty("webdriver.chrome.driver","C:\\Users\\user\\Downloads\\chromedriver\_win32 (1)\\chromedriver.exe" );

driver = new ChromeDriver();

driver.manage().window().maximize();

}

@When("the user navigates to urban ladder4")

public void navigates\_to\_urban\_ladder4() {

driver.get("https://www.urbanladder.com/");

}

@Then("selecting product in section4")

public void selecting\_product\_in\_section\_4() throws InterruptedException {

driver.findElement(By.id("search")).getTagName();

driver.manage().window().maximize();

System.out.println("selecting the product4");

driver.navigate().to("https://www.urbanladder.com/products/altura-coffee-table-with-nested-stools?sku=FNTBCF12TT10053&src=room");

Thread.sleep(6000);

driver.findElement(By.xpath("//\*[@id=\"authentication\_popup\"]/div[1]/div/div[2]/a[1]")).click();

System.out.println("Pop-up Closed");

driver.findElement(By.xpath("//\*[@id=\"add-to-cart-button\"]")).click();

Thread.sleep(2000);

System.out.println("add to cart");

driver.findElement(By.xpath("//\*[@id=\"checkout-link\"]")).click();

Thread.sleep(2000);

System.out.println("checkout");

driver.findElement(By.id("order\_email")).sendKeys("abc@gmail.com");

driver.findElement(By.id("order\_ship\_address\_attributes\_zipcode")).sendKeys("683580");

driver.findElement(By.id("order\_ship\_address\_attributes\_address1")).sendKeys("abcdefg");

driver.findElement(By.id("order\_ship\_address\_attributes\_firstname")).sendKeys("xxxxxx");

driver.findElement(By.id("order\_ship\_address\_attributes\_lastname")).sendKeys("yyyyyy");

driver.findElement(By.id("order\_ship\_address\_attributes\_phone")).sendKeys("xxxxxx");

driver.findElement(By.id("gstin")).sendKeys("gst123");

driver.findElement(By.id("address-form-submit")).click();

System.out.println("Window closed");

driver.close();

}

}

**Runner Class:**

* Referred as main class in typical java program from where the execution starts.
* In Cucumber, the execution starts from the RunnerClass.

Test Runner

package StepDefinitions;

import org.junit.runner.RunWith;

import io.cucumber.junit.Cucumber;

import io.cucumber.junit.CucumberOptions;

@RunWith(Cucumber.class)

@CucumberOptions(features="src/main/resources/Features",glue= {"StepDefinitions"},

monochrome=true)

public class TestRunner {

}

**pom.xml file:**

* This project is created using maven which runs based on the dependencies added in the pom.xml file.

<project xmlns=*"http://maven.apache.org/POM/4.0.0"* xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xsi:schemaLocation=*"http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd"*>

<modelVersion>4.0.0</modelVersion>

<groupId>Capstoneproject</groupId>

<artifactId>Capstoneproject</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<dependency>

<groupId>org.seleniumhq.selenium</groupId>

<artifactId>selenium-java</artifactId>

<version>2.47.1</version>

</dependency>

<dependency>

<groupId>io.cucumber</groupId>

<artifactId>cucumber-java</artifactId>

<version>5.7.0</version>

</dependency>

<dependency>

<groupId>io.cucumber</groupId>

<artifactId>cucumber-junit</artifactId>

<version>5.7.0</version>

</dependency>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13</version>

</dependency>

</dependencies>

</project>

**Output in Console:**

